

**Memorandum of Understanding  
Between the  
National Nuclear Security Administration  
Nevada Operations Office  
and the  
Los Alamos National Laboratory**

**DE-GM08-02NV14304**

**1. INTRODUCTION**

This Memorandum of Understanding (MOU) is entered into by and between the National Nuclear Security Administration Nevada Operations Office (NNSA/NV) represented by the Manager, NNSA/NV, and the Los Alamos National Laboratory (LANL) represented by the Director of LANL. This MOU provides a framework agreement between the two organizations regarding the relocation and operations of Atlas at the Nevada Test Site (NTS).

Atlas was designed and built to perform physics experiments for the Stockpile Stewardship Program (SSP) and support basic physics experiments for the broader scientific community as well. An external review of Atlas conducted by Defense Programs (DP) September 1, 1999, concluded that Atlas should be a Stockpile Stewardship facility with its program firmly focused on science issues relating to certification of the stockpile – now and in the future. The concept of using Atlas as a User Facility funded by DP to support non-DP laboratory researchers was to be deferred into the indefinite future.

- a. Atlas must support a multi-laboratory program of Stockpile Stewardship experiments. That program must address the highest priority data needs for SSP for which Atlas is the appropriate venue. All DP laboratories have equal access to Atlas through the Atlas Program Coordinating Committee.
- b. Atlas experiments can profit from broad integration of university researchers (and researchers from other institutions) into the experimental program. The inclusion of researchers from outside the DP laboratory family can be accomplished in a variety of ways, including engaging outside researchers in the design team for laboratory-sponsored experiments and sponsoring outside research teams to design, conduct, and analyze one or a series of SSP-related experiments on Atlas.

## 2. BACKGROUND.

On August 19, 2000, LANL briefed the concept of pulsed-power driven hydrodynamics experiments on Atlas to Madelyn R. Creedon, Assistant Secretary for Defense Programs (DP-1), in the context of relocating and operating Atlas in Area 6 at the NTS. DP-1 requested a conceptual plan for such a program; and on October 30, 2000, LANL, NNSA/NV, and Bechtel Nevada (BN) presented the "Plan for Atlas Relocation and Operation at the NTS." On December 8, 2000, DP-1 directed implementation of a two-component approach, including an Atlas Relocation Project and an Atlas experimental program.

The October 30, 2000, Relocation and Operations Plan included five major points:

- a. Following completion of the Atlas Construction Project, BN will relocate and recommission the Atlas system at the NTS with technical oversight and guidance provided by LANL.
- b. LANL and BN will jointly operate Atlas in FY02, or until a new high-bay building at the NTS is completed, to reduce risk and assure a successful transition.
- c. LANL will support and qualify a BN operating team during/after the recommissioning.
- d. BN will assume operational responsibility for Atlas at the NTS.
- e. LANL will ensure the technical vitality of Atlas experiments by leading a multi-laboratory program of experiments addressing campaign deliverables.

The DP-1 memo, dated December 8, 2000, in addition to authorizing the use of FY01 funds, added:

- a. "Recognizing that this is an acquisition of a capital asset, it must comply with the requirements of DOE Order 413.3, 'Program and Project Management for the Acquisition of Capital Assets,' applicable to 'Other Projects'."
- b. Delegation of Acquisition Executive Authority to the Manager of the Nevada Operations Office.

The LANL Atlas Construction Project completed construction acceptance tests on December 15, 2000, and CD-4 was approved on March 7, 2001. Atlas operations at LANL commenced on August 7, 2001.

The Performance Baseline (CD-2) for the Atlas Relocation to the NTS Project was approved on November 13, 2001, and full construction start (CD-3) of the NTS facility was approved on December 6, 2001. Disassembly of Atlas at LANL is scheduled to begin in August 2002.

### 3. PURPOSE

This MOU provides a framework agreement between the two organizations regarding their responsibilities in both the relocation to and operation of Atlas at the NTS.

### 4. AGREEMENT

In what follows, it is understood that the ability of the parties to fulfill their obligations under the agreement will be contingent upon adequate funding within the NNSA/NV and LANL budgets for the tasks described. It is further agreed that should budget shortfalls at one institution arise that might negatively impact the overall plan, both parties will keep each other fully informed, jointly explore solutions, and communicate jointly to NNSA Defense Programs on a shared approach in a manner beneficial to the overall project.

- a. To accomplish the objectives articulated in the Relocation and Operations Plan and the DP-1 implementing direction, LANL will make every effort to:
  - (1) Initiate, plan, and execute a program of physics experiments to be conducted on Atlas at Los Alamos until a suitable high-bay facility is ready at the NTS to allow immediate disassembly and reassembly of the machine. It is expected that the program of physics experiments will be focused in Campaign 2 (MTE 2.2 Constitutive Properties) but will also provide data to Campaign 1 (MTE 1.4 Boost Physics) and Campaign 4 (MTE 4.4 Secondary Performance).
  - (2) Include, in its SSP activities, resources to initiate, plan, and coordinate a multi-laboratory program of physics experiments for execution on Atlas after recommissioning at the NTS. LANL will include, in its SSP activities, resources to execute a baseline program of physics experiments to meet LANL deliverables for SSP for at least three years after recommissioning at the NTS. Experiments proposed by other laboratories will be supported from the proposing laboratory's SSP or other programs. LANL will prepare and coordinate a charter for an Atlas Program Coordination Committee (PCC) and (with the concurrence of NNSA/NV) appoint the first Atlas Technical Director, who will chair the PCC and direct the Atlas Scientific Program. The Atlas PCC will invite membership from LANL, the Lawrence Livermore National Laboratory, Sandia National Laboratories, BN, and NNSA/NV.
  - (3) Own, operate, and maintain Atlas until the beginning of disassembly for relocation. Facility costs at LANL will be the responsibility of the Los Alamos program.
  - (4) Provide mentoring, in the technology and operation of Atlas, to the BN relocation and operating team during the Relocation Project. While formal training of the BN operating team is the responsibility of BN under its contract with NNSA/NV, LANL and BN will develop a training plan for implementation both at LANL and at the NTS after

recommissioning that, when successfully completed, will result in LANL certification of the BN team as qualified to operate Atlas. LANL will provide an independent evaluation and assessment of the BN team as they assume operational responsibility for Atlas and will continue mentoring through the first year of Atlas operations.

- (5) Provide specialized liner and target fabrication for approved Atlas experiments through the Los Alamos Target Fabrication Facility (TFF). Costs for precision components (e.g., liners, targets, etc.) will be the responsibility of the sponsoring laboratory's SSP or other program.
  - (6) Coordinate and encourage NNSA/NV-supported university participation in Atlas experiments.
  - (7) Support, where budget and expertise permit, the long-term development of technology for Atlas.
- b. To accomplish these objectives, NNSA/NV will make every effort to:
- (1) Provide federal project management for the Atlas Relocation Project and Atlas operations. NNSA/NV will concur in the appointment of the Atlas Technical Director and provide representation on the Atlas Program Coordination Committee.
  - (2) Include Atlas facility development, maintenance, and operations resources in its budgeting, for at least three years after recommissioning at the NTS, to support experiments providing Campaign deliverables and experiments to familiarize the SSP with the capability of Atlas for pulse power hydrodynamics experiments.
  - (3) Request resources for support of university participation in Atlas experiments in its stewardship program budgeting for at least three years after recommissioning including resources to support Atlas operations for approved university experiments. University participation would be administered through NNSA and technically supported by LANL and BN.
- c. Through its contract with BN, NNSA/NV will make every effort to:
- (1) Provide support of the initial operation of Atlas in Los Alamos by establishing a BN operating team that will assist the LANL operating team and train with them to become qualified to operate Atlas at the NTS.
  - (2) Lead the execution of the Atlas Relocation Project with the objective of relocating Atlas to the NTS with minimum downtime and as promptly as possible. The relocation project includes the conduct of recommissioning tests and meeting the applicable

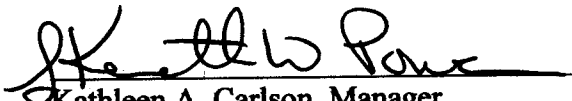
requirements of DOE Order 413.3, including Readiness Assessment, Hazard Assessment, and the development of appropriate NTS operating procedures.

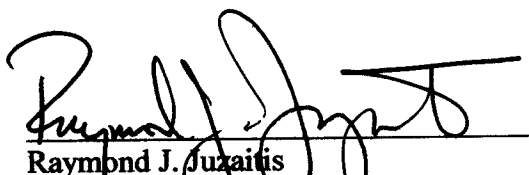
- (3) Manage and operate Atlas when it is recommissioned at the NTS. Accept responsibility for the safe, secure, and reliable operation of Atlas at the NTS in support of the multi-laboratory physics program developed by the Laboratories through the Atlas Program Coordination Committee.
- (4) Operate Atlas in response to the needs of the multi-laboratory technical program. Support and operate the evolving suite of "core" diagnostics (electrical, radiography, laser imaging, VISAR) regularly used in experiments. Provide representation on the Atlas Program Coordination Committee.
- (5) Develop long-term diagnostic technology and facility improvements in response to campaign needs.

#### 5. PROGRAM FUNDING

This MOU shall not be used to obligate or commit funds or as the basis for the transfer of funds.

- a. **Effective Date.** This MOU shall become effective upon the latter date of signature of both parties. It shall remain in effect for a five-year term from the effective date unless otherwise terminated.
- b. **Amendments.** This MOU may be amended by written agreement between NNSA/NV and LANL.
- c. **Termination.** This MOU may be terminated by the mutual written agreement of NNSA/NV and LANL or by either party upon 60-day written notice to the other party.

  
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 6/27/02  
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